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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,670	09/05/2003	Will Wood	40124/02301	1719
30636	7590	05/02/2006	EXAMINER	
FAY KAPLUN & MARCIN, LLP 150 BROADWAY, SUITE 702 NEW YORK, NY 10038			PIERCE, JEREMY R	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 05/02/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/656,670

Applicant(s)

WOOD ET AL.

Examiner

Jeremy R. Pierce

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5, 7-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-18 and 22-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/20/06.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 23, 2006 has been entered.

### ***Response to Amendment***

2. Applicant's amendment filed on February 23, 2006 has been entered. Claims 1-5, 7, and 18 have been amended. Claims 6 and 19 are cancelled. Claims 1-5, 7-18, and 20-25 remain pending with claims 20 and 21 withdrawn from consideration. Applicant's amendment is sufficient to overcome the Claim Objection to claim 11 set forth in section 4 of the last Office Action. Applicant's amendment is also sufficient to overcome the 35 USC 112 rejections set forth in sections 6 and 8 of the last Office Action because the objectionable portions of the claims have been deleted.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1771

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-9, 17, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (JP 3-14678; English translation provided).

With regard to claim 1, Ito et al. disclose a method for manufacturing polyester fiber having cyclodextrin dispersed within the fiber material (page 2). With regard to claims 2-5 and 7, the presence of zinc particles is not required in the claims. With regard to claims 8 and 9, the fiber may be made of polyester (page 1). With regard to claim 17, the fibers are made by melt spinning (page 4). With regard to claim 22, the fibers may be manufactured into a fabric (page 5), which meets the preamble limitation of a hygienic article.

5. Claims 1-5, 7-11, 13, 16-18, and 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Trinh et al. (U.S. Patent No. 5,429,628).

With regard to claim 1, Trinh et al. disclose a material comprising fibers (column 6, lines 45-58) and particles of cyclodextrin dispersed throughout (Abstract). The particles, while not being dispersed within each individual fiber, are dispersed within the fibers as a group. With regard to claims 2-5 and 7, the presence of zinc particles is not required in the claims. With regard to claim 8-10, the topsheet may be constructed of polypropylene fibers (column 10, lines 58-60) and the cyclodextrin may be dispersed throughout the topsheet (column 7, line 7). With regard to claims 11 and 25, the cyclodextrin may be used in an amount of 1% by weight of the fibers (See Example 7). With regard to claim 13, the cyclodextrin may comprise an alkyl ether group (column 15,

Art Unit: 1771

lines 19-27). With regard to claim 16, the silyl ether group is not required in the claims.

With regard to claim 17, the substrate may be spunbonded (column 10, line 45). With

regard to claim 18, the cyclodextrin may be dispersed uniformly (column 14, lines 46).

With regard to claims 22-24, Trinh et al. disclose the particles may be found in the absorbent core or the topsheet of a diaper (column 3, lines 46-50).

6. Claims 1-3, 7, 8, 11-16, 18, 22, and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Otani et al. (JP 55-115440, English translation).

With regard to claims 1 and 7, Otani et al. monofilament fibers drawn comprising between 0.1 and 30% zinc powder mixed with acrylonitrile polymer (page 1). With regard to claims 2 and 3, Otani et al. teach the zinc powder have a particle size of less than 1 micron (page 3), and specifically 0.5 microns (page 5). With regard to claim 8, acrylonitrile polymer is thermoplastic. With regard to claims 11-16 and 25, the presence of cyclodextrin is not required in the claims. With regard to claim 18, Otani et al. teach homogeneous dispersion of the powder (page 4). With regard to claim 22, Otani et al. teach the material is used in sanitation productions (page 1).

### ***Claim Rejections - 35 USC § 102/103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1771

8. Claim 12 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ito et al.

Although Ito et al. do not explicitly teach the limitation of low moisture content, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. cyclodextrin) and in the similar production steps (i.e. dispersed in each fiber) used to produce the fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed low moisture content would obviously have been provided by the process disclosed by Ito et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

9. Claim 12 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Trinh et al.

Although Trinh et al. do not explicitly teach the limitation of low moisture content, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. cyclodextrin) and in the similar production steps (i.e. dispersed in the fibrous substrate) used to produce the fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed low moisture content would obviously have been provided by the process disclosed by Trinh et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102.

***Claim Rejections - 35 USC § 103***

10. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trinh et al. in view of Wood et al. (U.S. Patent No. 5,776,842).

With regard to claims 13-16, Trinh et al. do not teach all the possible substituents that the cyclodextrin material can comprise. Wood et al. teach cyclodextrin material that contains all the various claimed substituents (column 8, line 35 – column 10, line 62). Wood et al. teach that substituents can be placed on a cyclodextrin to provide uniform dispersion on a substrate (column 8, lines 15-20). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use the moieties taught by Wood et al. in the cyclodextrin of Trinh et al. in order to provide cyclodextrin material that can better interact with polymer and provide uniform dispersion on a substrate, as taught by Wood et al. With regard to claim 12, although Wood et al. do not explicitly teach the limitation of low moisture content for their cyclodextrin material, it is reasonable to presume that said limitations are inherent to the combination of using the cyclodextrin of Wood et al. in the product of Trinh et al. Support for said presumption is found in the use of similar materials (i.e. cyclodextrin with similarly claimed moieties) and in the similar production steps (i.e. dispersed in the fibrous substrate) used to produce the fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed low moisture content would obviously have been provided by the process disclosed by Wood et al.

***Response to Arguments***

11. Applicant's arguments filed February 23, 2006 have been fully considered but they are not persuasive.

12. Applicant argues that one main difference between the present invention and Trinh et al. is that the cyclodextrin is dispersed into the fiber material before the fibers are produced in the present invention, whereas Trinh et al. coat cyclodextrin onto fiber after the fiber is produced. This may be true, but Applicant's claims do not recite a limitation pertaining to how the cyclodextrin becomes dispersed into the fibers. The claims do not recite that the particles are dispersed within the fiber material (i.e. the molten polymer) before manufacturing the fiber. The claims do not recite that each individual fiber must have particles dispersed therein. During examination, claims are read with the broadest reasonable interpretation. The current claim language says that the particles are "dispersed within the fibers." Applicant has amended claim 1 to recite the particles dispersed "within" the fibers rather the particles being dispersed "in" the fibers. However, the amended claim may still be interpreted by looking at the claimed "fibers" as a group. Particles can be dispersed "within the fibers" as a group without actually having to be dispersed within each individual fiber. If particles are found among the group of fibers, then they are dispersed within the fibers. The current claim language does not express Applicant's desire to have the claims read as if the particles were dispersed within the polymer material before the fibers are produced. The claims do not recite that the particles are dispersed within each and every one of the fibers.



Art Unit: 1771

13. Applicant argues that the zinc powder disclosed by Otani et al. refers to zinc salts, such as zinc oxides and zinc hydroxides, whereas the present invention is directed to zinc powder that is free of corresponding oxides. Applicant also asserts that incorporation of 30% by weight (the upper end of the range taught by Otani et al.) of highly reactive zinc powder is practically impossible. In response, the Examiner points out that Otani et al. teach that as little as 0.1% by weight of zinc powder may be added to the fibers (page 1). The Examiner also disagrees with the assertion that Otani et al. is directed to ionic salts of zinc. The Examiner's reasoning is based upon page 5 of Otani et al, which states: "While the acrylonitrile polymer layer carrying the above-mentioned zinc powder layer may not contain other fillers, the appearance of the resultant article, particularly the fiber becomes favorable by containing a filler such as zinc oxide, titanium oxide, or aluminum hydroxide in a ratio of 30% by weight or less." From this it is clear that Otani et al. recognize zinc oxide as an entirely different type of filler than the zinc powder used in the fibers. Applicant's argument that when Otani et al. refers to zinc powder, they are actually referring to oxides and hydroxides of zinc is unconvincing since Otani et al. speak of zinc oxide as a material that is entirely different from the zinc powder.

14. Applicant argues that the limitation of the cyclodextrin material has at least a low moisture content of about 1 wt.% based on the cyclodextrin material is not inherent to Trinh et al. Applicant asserts that Trinh et al. will have a moisture content being much greater than 1 wt.%. However, the exhibit provided by Applicant is not commensurate in scope with Trinh et al. because the tests do not measure the moisture content of the

Art Unit: 1771

cyclodextrin after it has undergone the processing conditions disclosed by Trinh et al. Additionally, even if the moisture content of the cyclodextrin material of Trinh et al. were greater than 1 wt.%, it would meet the claim limitation. The claim recites that the moisture content be "at least" 1 wt.%. Thus, any value greater than 1 would meet the claim limitation.

15. Applicant argues that Wood et al. fail to cure the deficiencies of Trinh et al. However, the Examiner does not believe Trinh et al. to be deficient with respect to the rejected claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (571) 272-1479. The examiner can normally be reached on normal business hours, but works flextime hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Art Unit: 1771

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Jeremy R. Pierce', is positioned above the printed name.

Jeremy R. Pierce  
Examiner  
Art Unit 1771

April 27, 2006